

### REMARKS/ARGUMENTS

In the claims, Claim 106 has been amended. The amendment to claim 106, as presented herein, is not made for the purpose of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Support for the amendment can be found in the present application. Accordingly, no question of new matter should arise, and entry of this amendment is respectfully requested.

Claims 1-129 are pending.

In response to the Restriction Requirements mailed September 27, 2007, applicants provisionally elect, with traverse, the invention of Group IV (Claims 106-129) directed to a process for the isolation and purification of insulin from recombinant sources consisting of treatment of the expression broth/culture medium containing the expressing cells with water miscible organic solvent followed by chromatography in an expanded mode. It may be noted that, in the event that the restriction requirement(s) are not withdrawn, the applicants reserve the right to file divisional application(s) claiming the non-elected claims. In addition, in response to the requirement for an election of specie, to the extent applicant understands the requirement, applicants provisionally elect with traverse the invention of claim 110, which depends from claim 109 which depends indirectly from claim 106. Reconsideration and withdrawal of the Restriction Requirement, in view of the remarks herein, is respectfully requested. Further, applicant includes herewith amendments to certain of the pending claims made in an effort to more clearly particularly point out and distinctly claim the invention. Support for the amendments are to be found in the original claims and the Specification as filed.

The Restriction Requirement is traversed on the basis that the inventions of Group I

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Application Serial Number: 10/523,999; Filing Date: 02-09-2005; Title: Process for the extraction and isolation of insulin from recombinant sources. Examiner: HARRI, JENNIFER L.; Art Unit: 1654  
Confirmation Number: 2848. Our Reference Number: WH-1

(Claims 1-87); Group II (Claims 88-97), Group III (Claims 98-105) and Group IV (Claims 106-129), are closely related and require many of the same elements. Specifically, all of the claims are directed to a process for the enhanced isolation or recovery of insulin from an expression broth or culture medium by treating said broth or medium with a solvent system as defined in the claims and in the specification.

In support of restricting between the 4 groups of claims, the Examiner has indicated that Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding technical features. The Examiner points out that a national stage application shall relate to one invention only or to a group of invention so linked as to form a single general inventive concept. Applicants, respectively, disagrees with the conclusion reached.

Applicants would urge that the present claims of all 4 groups do in fact relate to form a single inventive concept. Specifically the claims are related to a process for enhanced recovery of recombinant insulin.

The applicants urge that the search of these 4 groups of claims as a single invention is appropriate since they are so closely related as to constitute a single concept and endeavor, since the principle of the claimed process for enhanced recovery of recombinant insulin by treating the expression broth/culture medium with water with water miscible organic solvents and/or with salts and/or with amino acids and/or at different pH conditions, (claims 1-87), is put to practice as in;

- a) for enhancing the recovery by sequential extractions with isopropanol (claims 88-97),

- b) citrate buffer at about pH 2 to about pH 5, followed by about 0.2 M to about 1.0 M sodium chloride at about pH 2 to about pH 5, followed about 10 percent to about 50 percent isopropanol at about pH 2 to about pH 5, followed by about 1M to about 5M urea at about pH 2, followed about 1M to about 5M urea at about pH 4 (claims 98 – 105),
- c) for isolation and purification of insulin from recombinant sources comprising treatment of the expression broth/culture medium containing the expressing cells with water miscible organic solvent followed by chromatography in an expanded bed mode.

Further the Examiner has also indicated the application contains claims directed to more than one species of the generic invention, hence the Applicants are required to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. In response to this Restriction Requirement, the applicants provisionally elect, with traverse, the species "water miscible organic solvents". It may be noted that, in the event that the restriction requirement(s) are not withdrawn, the applicants reserve the right to file divisional application(s) claiming the unelected claims/species.

In support of the request for restriction Requirement, the Examiner has indicated that these species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1, the species being, specific amino acids, pH, organic solvent (s), salt concentrations, etc.

Applicants would urge that all the species relate to form a single inventive concept. Specifically all the claims are related to a process for enhanced recovery of recombinant insulin, when the expression broth/culture medium containing the expressing cells is treated with specific

amino acids, pH, organic solvent (s), salt concentrations, etc., so that the concentration of the insulin in solution is higher than had the expression broth/culture medium not been treated with specific amino acids, pH, organic solvent (s), salt concentrations, etc. As noted in the specification, a fraction of the protein expressed by yeast is bound to its surface. Hence when the culture is subjected to treatment of specific amino acids, pH, organic solvent (s), salt concentrations, etc., the bound insulin also gets extracted into solution. Since all the species exhibit the same property, viz. extraction of the bound insulin, there is enhanced recovery when insulin expressing yeast cultures are treated with specific amino acids, pH, organic solvent (s), salt concentrations, etc. Hence the applicant urges that there is unity of invention.

Further the applicants urge that the search of species of claims as a single invention is appropriate since they are so closely related as to constitute a single concept and endeavor. Moreover, it is submitted that Applicants should not be required to incur the additional costs associated with the filing of other r patent applications (divisional applications) in order to have protection for the claimed subject matter. For instance, due to the relatedness of the claims in Groups I –IV, they can be efficiently and effectively searched in a single search with no additional burden placed on the Examiner.

Applicant would note that the Examiner, in setting out the basis of the restriction requirement for has failed to present evidence of this burden before a restriction requirement is made (MPEP 808-808.02)

Thus, the restriction requirement is properly traversed. Accordingly, reconsideration and withdrawal of the restriction requirement is respectfully requested.

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Applicant respectfully requests favorable consideration of the present application and a timely examination of all of the pending claims.

Should any official at the United States Patent and Trademark Office deem that any further action by the Applicant or Applicant's undersigned representative is desirable and/or necessary, the official is invited to telephone the undersigned at the number set forth below.

The Commissioner is hereby authorized to charge any fees which may be required regarding this application under 37 CFR §§ 1.16-1.17 or credit any overpayment, to deposit account No. 503321. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, or otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 503321.

Respectfully submitted,

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